



**Maine EMS Trauma Advisory Committee
Consensus Statement and Clinical Advice for Trauma Management**



Tranexamic Acid Use for Bleeding Trauma Patients

Part 1: Key Concepts

TXA (Tranexamic Acid) -- Tranexamic acid is a synthetic derivative of the amino acid lysine that inhibits fibrinolysis by blocking the lysine binding sites on plasminogen. Tranexamic acid safely reduced the risk of death in bleeding trauma patients in the CRASH-2 study. On the basis of these results, tranexamic acid should be considered for use in bleeding trauma patients in Maine.

- A. **Administration of TXA will be at the discretion of the receiving Trauma Surgeon**
- B. **Patient Eligibility for TXA = Trauma Patients of any age who meet the first two categories of the 2011 CDC Trauma Triage Protocol** (or comparable version in the Maine EMS Protocol revision):

Step One:

- GCS < or = 13
- SBP < 90
- RR < 10 or > 29, < 20 in infant less than one year old, or need for ventilatory support

Step Two:

- All penetrating injuries to head, neck, torso and extremities proximal to elbow or knee
- Chest wall instability or deformity (e.g. flail chest)
- Two or more proximal long-bone fractures
- Crushed, degloved, mangled, or pulseless extremity
- Amputation proximal to wrist or ankle
- Pelvic fractures
- Open or depressed skull fracture
- Paralysis

- C. **Timeframe:** Administered within the first 3 hours post-injury, preferably within the first hour

- D. **Dosing -- Weight-Based Bolus:**

- a) < 60 kg: 20 mg/kg IV bolus
- b) 60-75 kg: 1.5 gm IV bolus
- c) > 75 kg: 2.0 gm IV bolus

Part II: Annotations and Rationale

- E. **Caution:** Avoid concurrent use of TXA with rFVIIa or PCCs (Profilnine); Avoid if Allergy to TXA
- F. **PI Tracking:** "Is TXA making a difference for the people of Maine?"
Data to be tracked by the three Trauma Centers and reported regularly to the State Trauma Advisory Committee:
- a) Identification of Trauma Registry patients who received TXA
 - b) Outcome (Lived / Died)
 - c) Blood products transfused
 - d) Other data points from the Trauma Registries

Part III: References

The Crash 2 Contributors (Roberts et al): Effects of tranexamic acid on death, vascular occlusive events, and blood transfusion in trauma patients with significant hemorrhage (CRASH-2): a randomized, placebo-controlled trial. [Lancet](#). 2010 Jul 3;376(9734):23-32.

The Crash 2 Contributors (Roberts et al): The importance of early treatment with tranexamic acid in bleeding trauma patients: an exploratory analysis of the CRASH-2 randomized controlled trial. [Lancet](#). 2011 Mar 26;377(9771):1096-101, 1101.e1-2.

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